

## ABSTRACT OF THE DISCLOSURE

An inductor of the invention has a laminated structure in which an insulating layer and a wiring layer are laminated alternately on a semiconductor substrate. The laminated structure includes at least two wiring layers and an insulating layer interposed between them. A first wiring layer has a first winding part and a second winding part wound around on the same plane, which are disposed adjacently to each other. A second wiring layer has a wiring part having a single path from one terminal thereof to the other. The first and second winding parts are electrically connected to the wiring part. When a voltage is applied between one terminal of the first winding part and one terminal of the second winding part, currents flow in the first and second winding parts are in the opposite directions.